

GEORGIA DEPARTMENT OF NATURAL RESOURCES

Environmental Protection Division

Air Protection Branch



Photo By: Ken Hawkins

PM 2.5 Network

Time Line...

- 4 Develop monitoring plan
- 4 Receive monitoring equipment
- 4 Negotiate new monitoring site agreements
- 4 Training
- 4 Installation of monitors
- 4 Monitor calibration
- 4 Monitoring begins

Monitoring Plan

Georgia was assigned 9 core sites by EPA

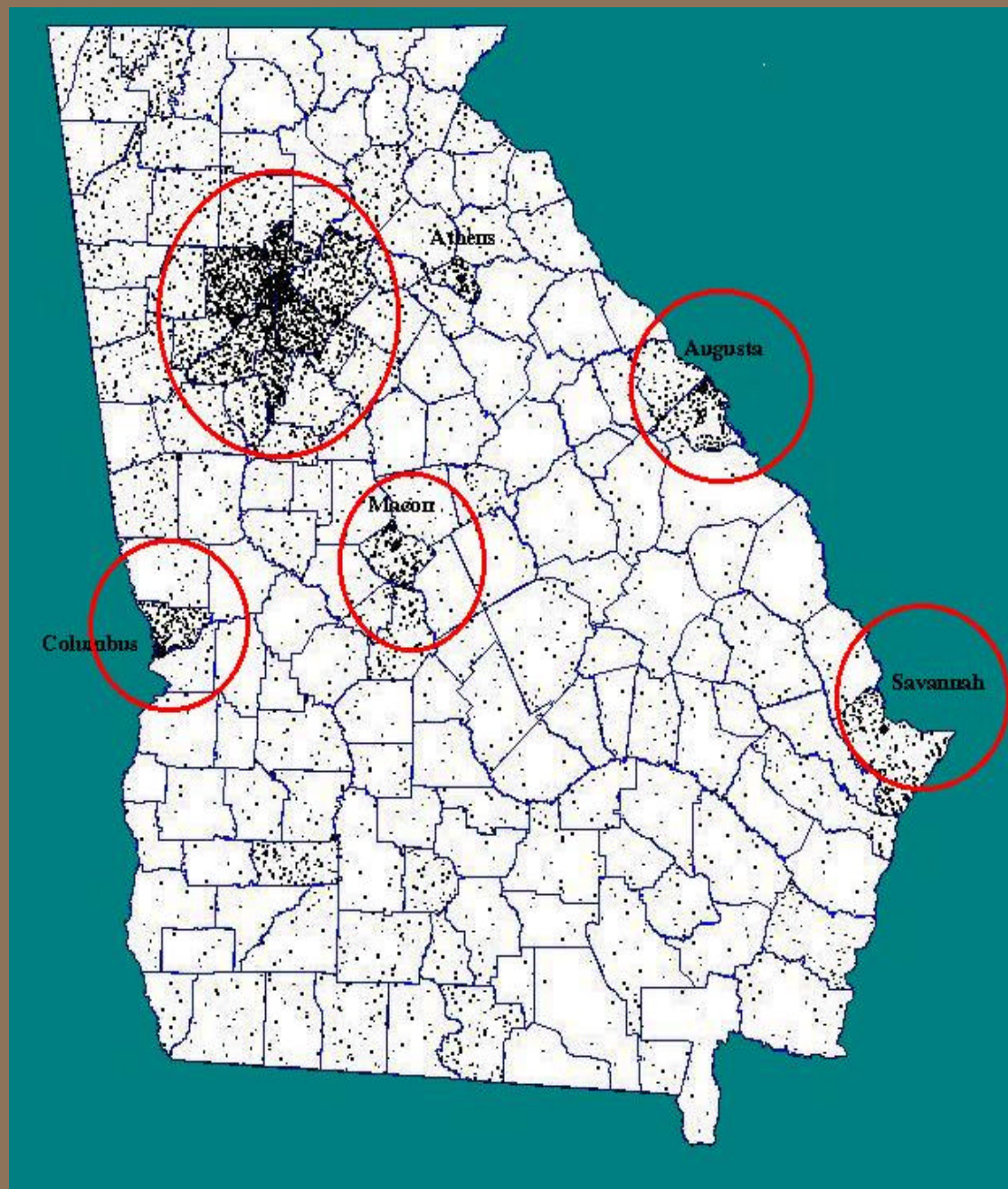
Five of those sites were to be located in Atlanta
the other four were located in:

Savannah

Macon

Augusta

Columbus



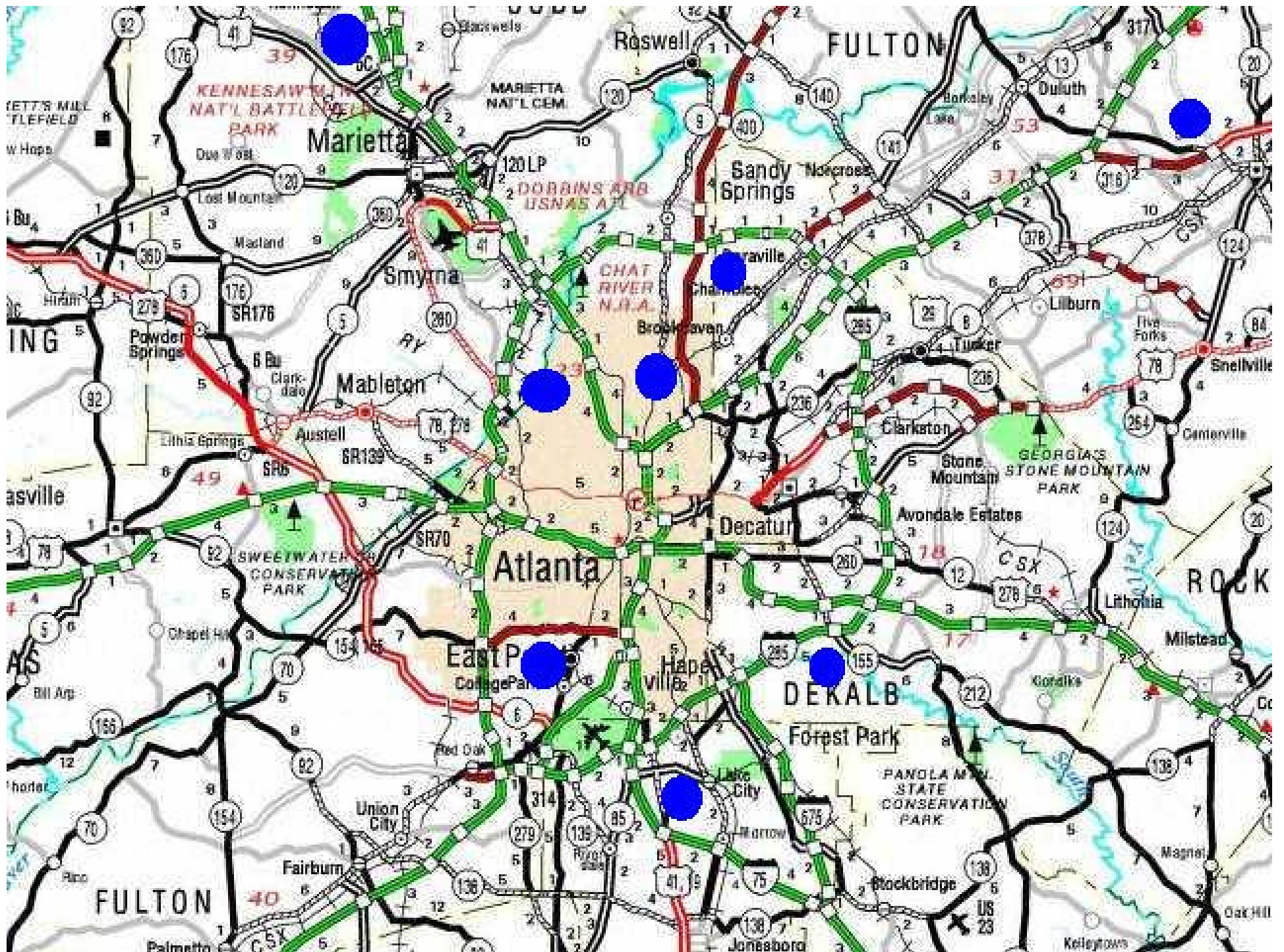
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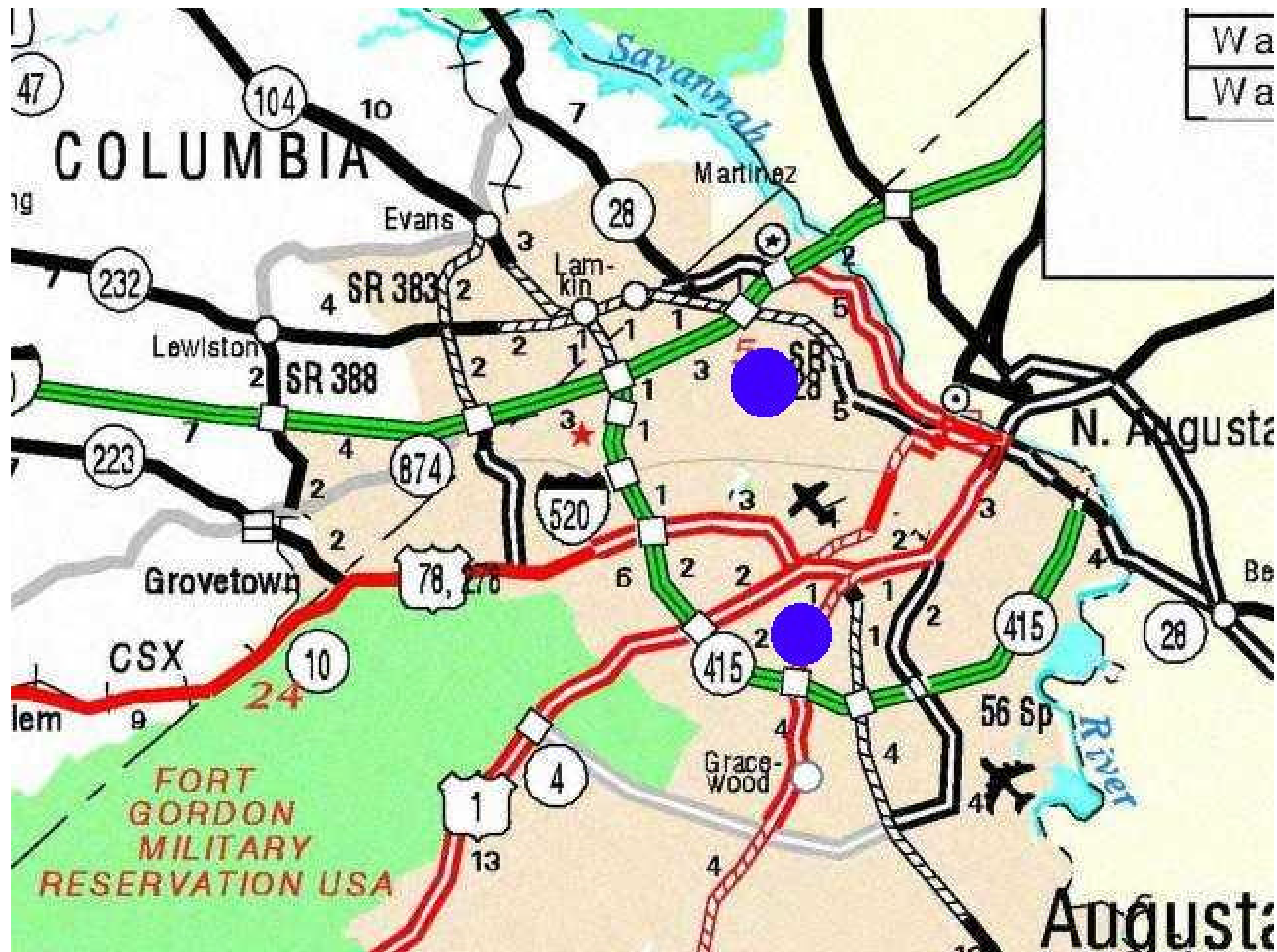
Monitoring Plan

In addition to the Core sites, Georgia was assigned 1 transport site and 12 Non-Core sites.

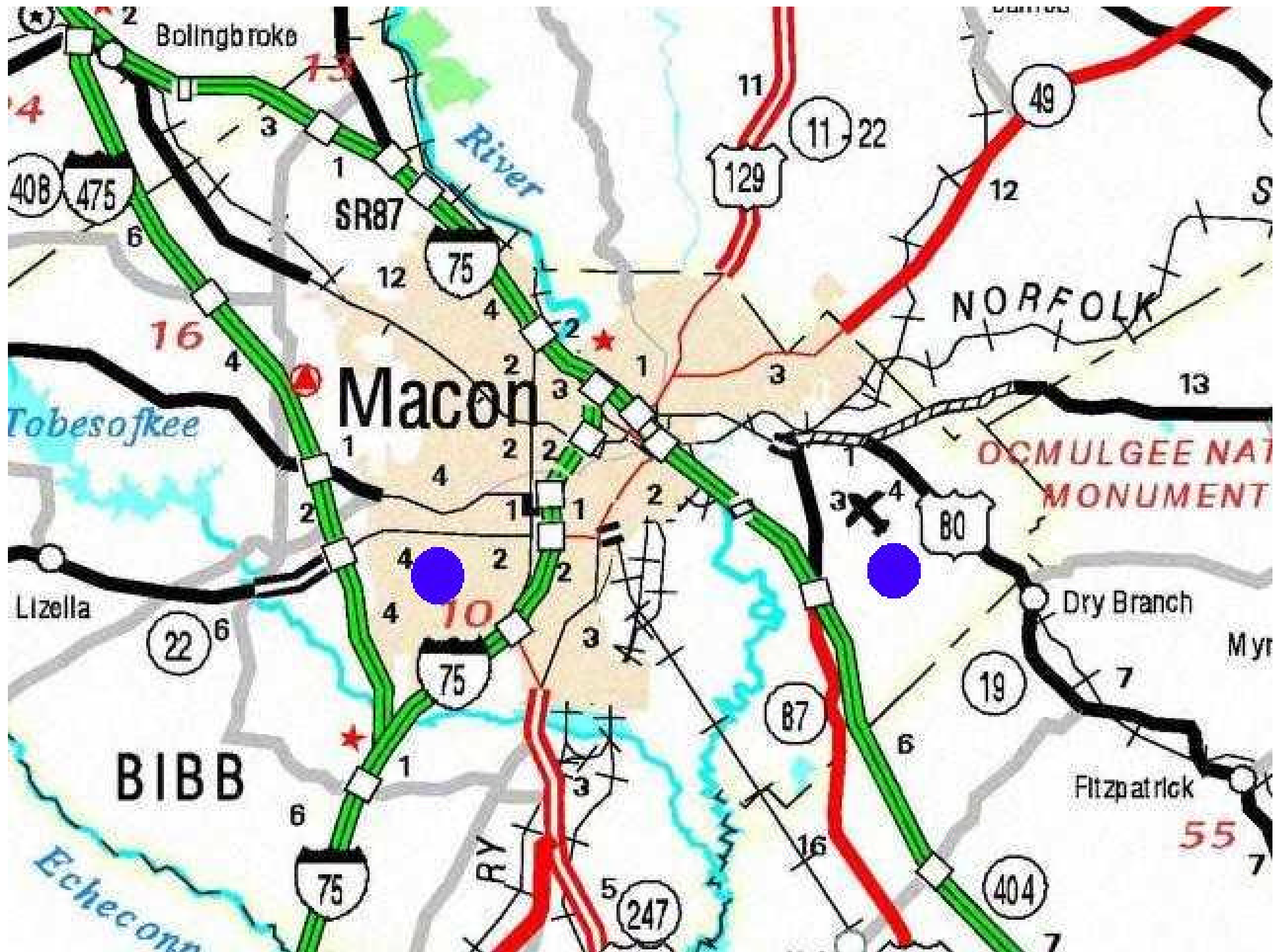
In the 1999 sample year one supplemental site was established.

In the 2000 sample year four additional supplemental sites were added to the network.



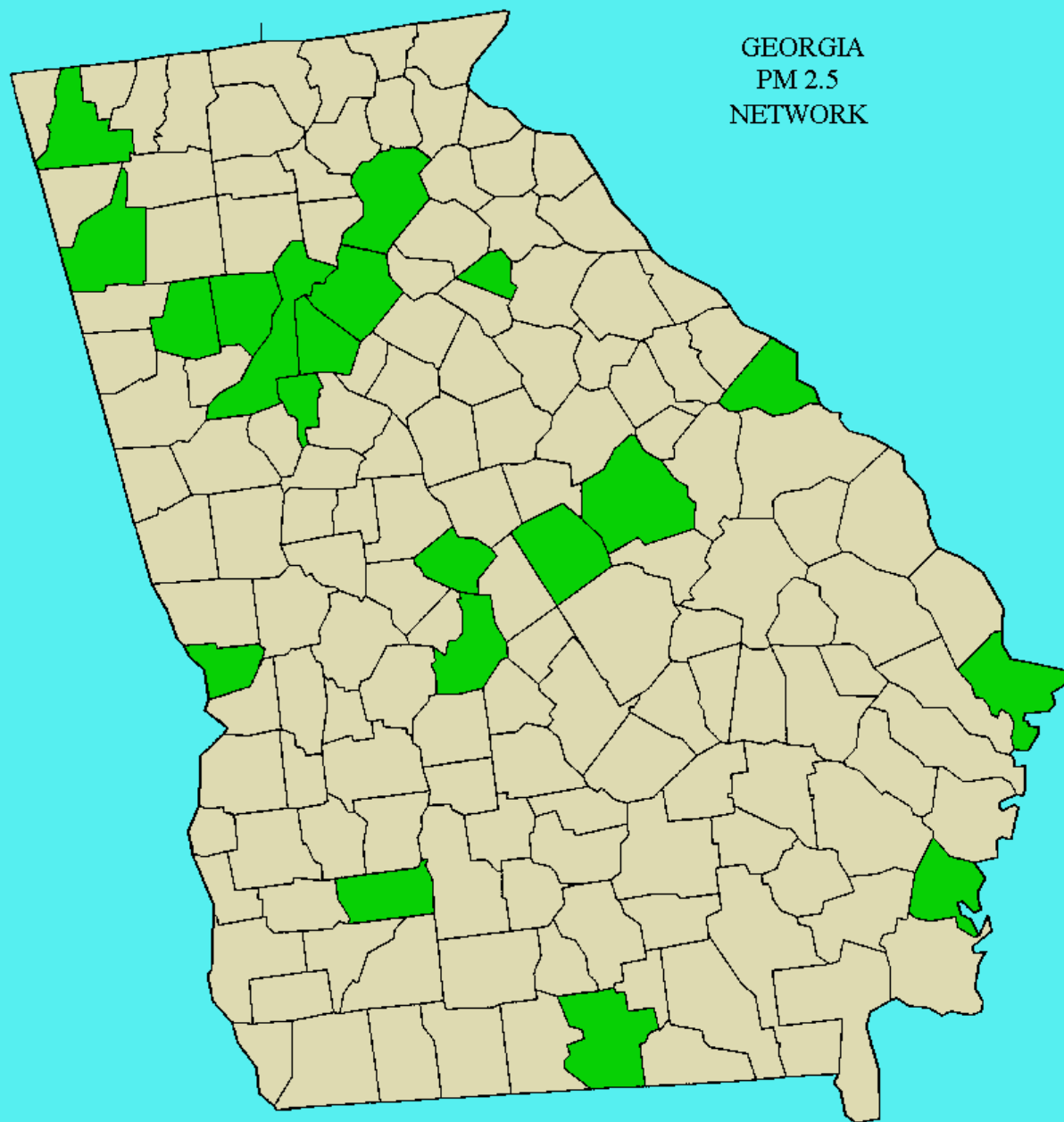








GEORGIA
PM 2.5
NETWORK



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More on Site Selection

It was decided, whenever possible, to choose pre-established monitoring sites in order to limit the amount of time needed for negotiation of property use agreements.

Therefore, many of the new PM 2.5 monitors are operating at existing PM-10 monitoring sites



Receive monitoring equipment

Georgia participated in the national contract, therefore, we had no choice regarding the manufacturer of the monitor.

Our PM-10 network is made up of primarily R&P PartisolsTM and we hoped to received R&P PM 2.5 monitors.

Our desire was to keep all of our monitors within the same manufacturing family if possible.

We received the Andersen RAAS Sequential monitors.



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Negotiating New Sites

There were 6 new sites added to the particulate monitoring network. Two were pre-existing toxic monitoring sites and two were pre-existing ozone sites.

Therefore there was little need for negotiating land use agreements.

This enabled us to get our monitoring network up and running in a short time.

Training

Training became a more complicated issue due to the fact that in July of 1998 Georgia decided to contract or “out-source” all of it’s ambient monitoring activities.

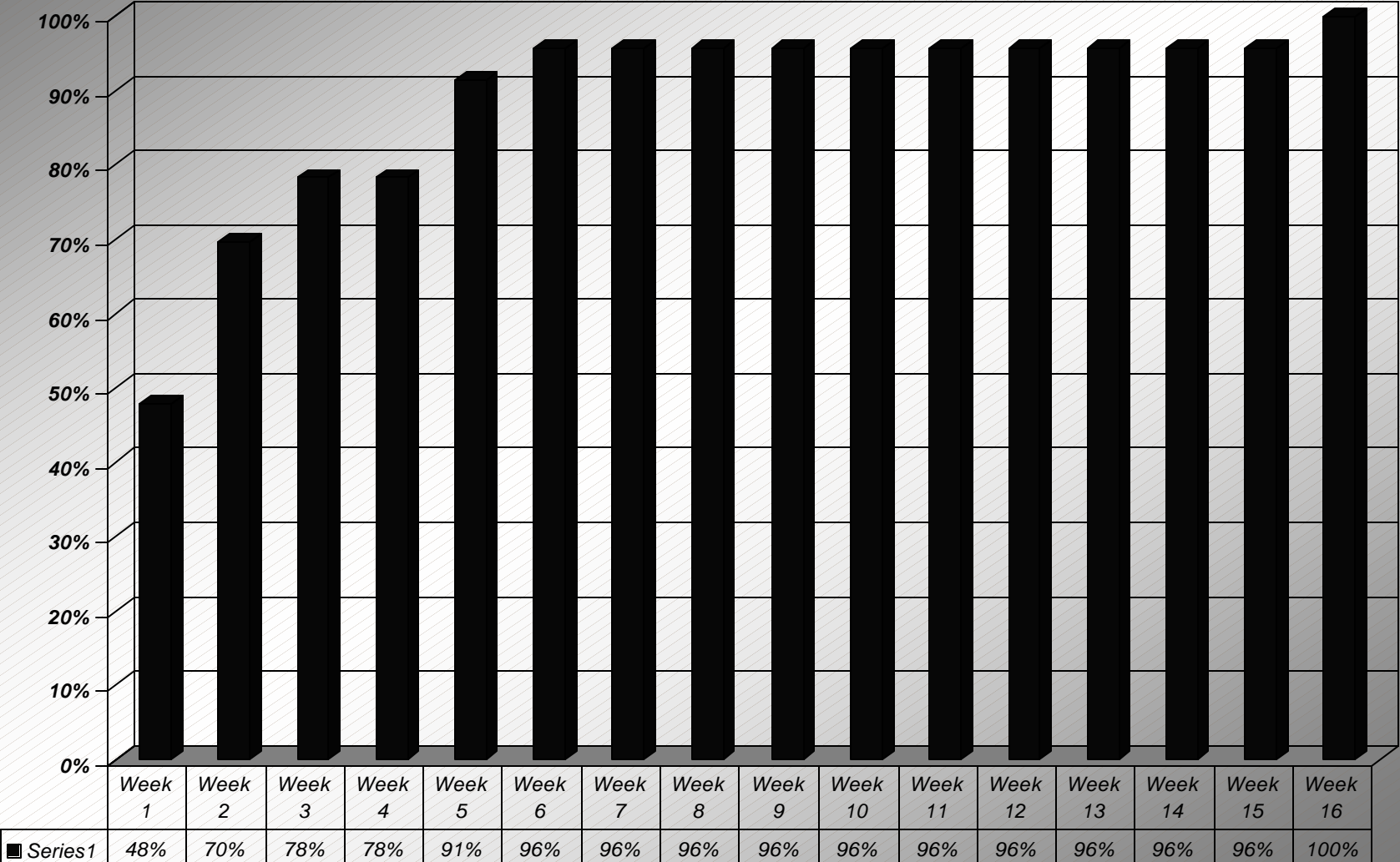
We did take advantage of all the training that EPA provided via satellite broadcast, workshops and printed material.

Additionally, we made arrangements for the vendor to provide training to our staff.

Installation of Monitors

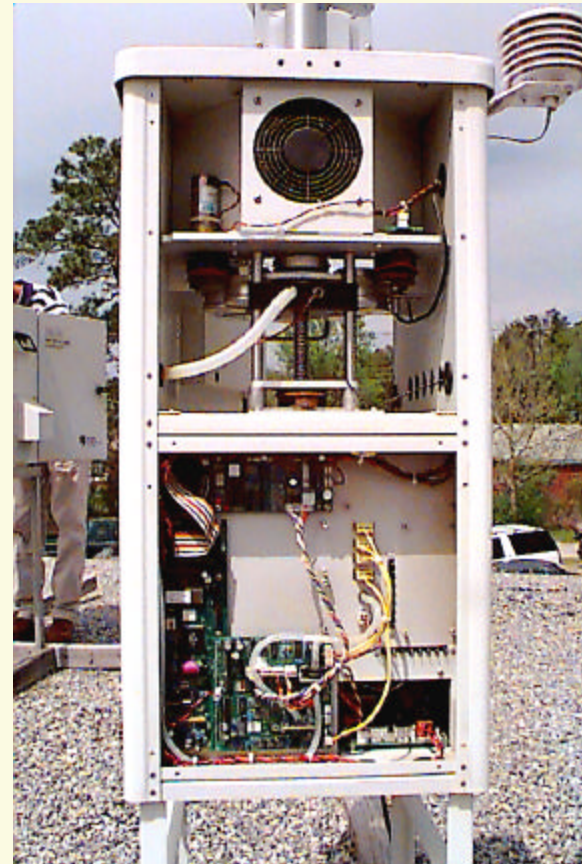
- 4 The state staff checked out all monitors before putting them in the field.
- 4 Our staff performed the initial calibration before turning the monitor over to the contractor.
- 4 Our staff dealt with all warranty issues with the vendor and attempted to resolve them ASAP.

Deployment Timeline



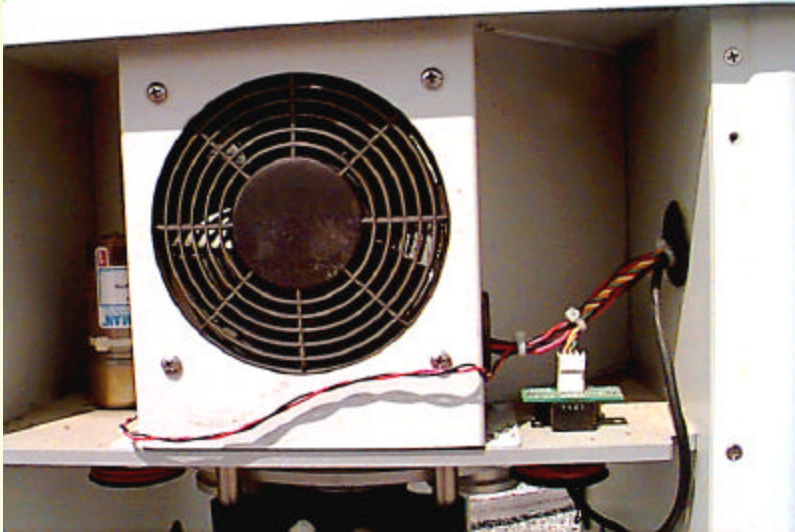
Equipment and Maintenance Challenges

- 4 So far about 30 % of our vertical and horizontal encoders have failed and had to be replaced.
- 4 The vendor is being very helpful in heading this problem off before we encounter any more.



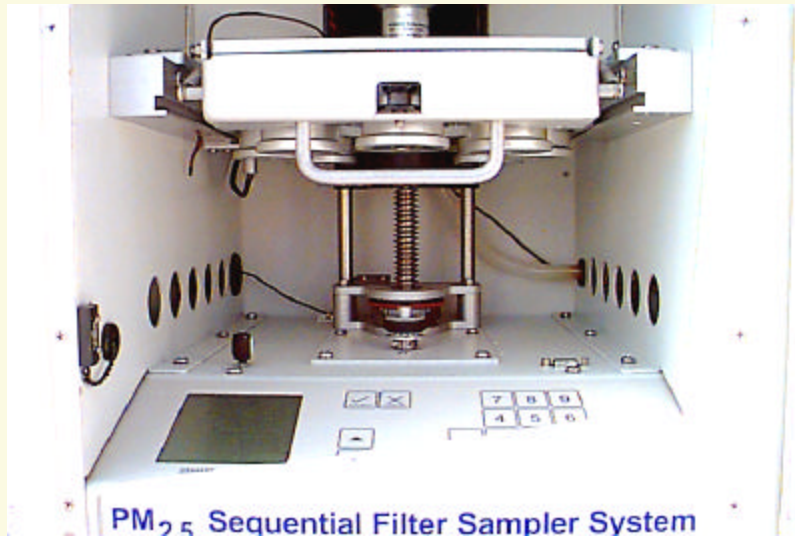
Vertical Encoders

- 4 The Vertical encoder drives and removes the filter cassette into the WINS Impactor.

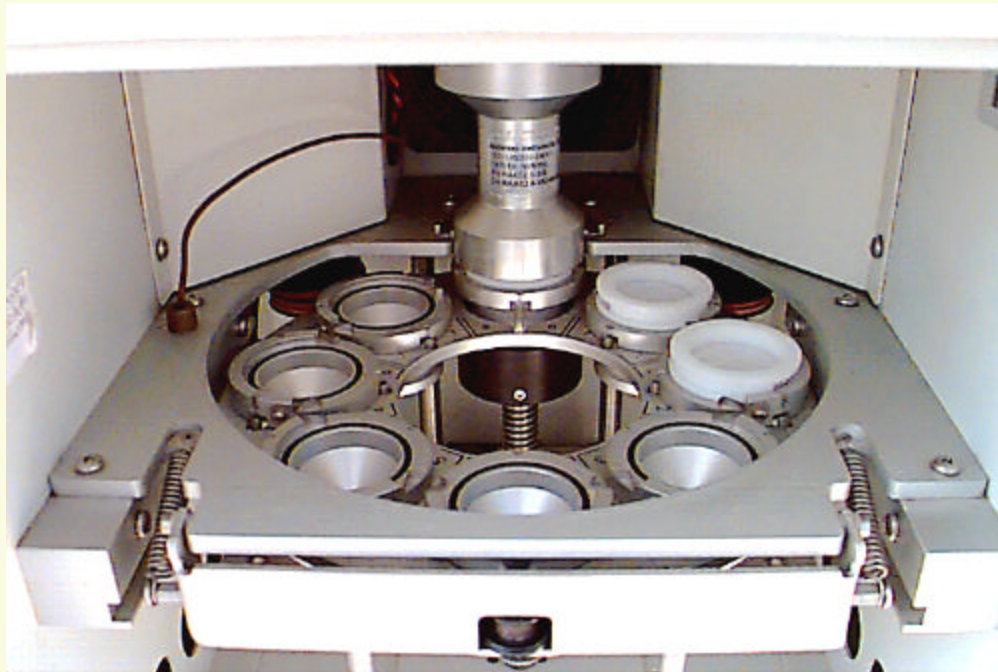


Horizontal Encoder

- 4 The Horizontal Encoder rotates the carousel tray to the proper position.

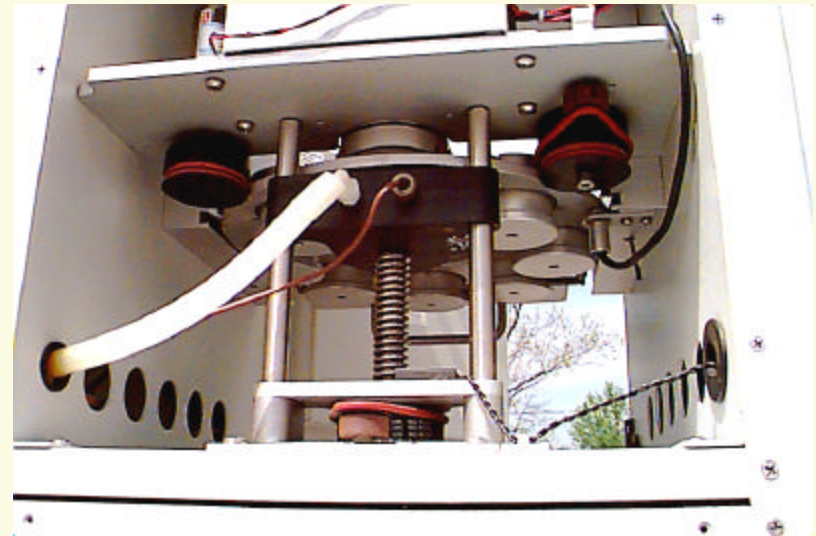


A better shot of the carousel

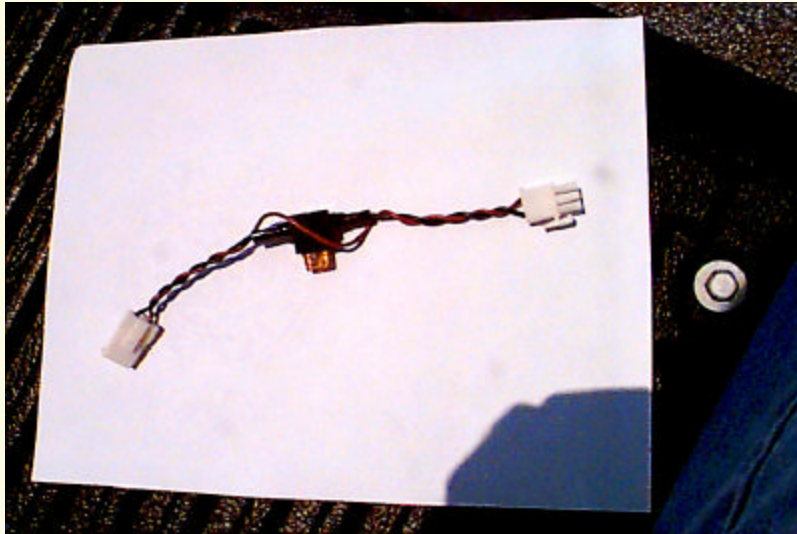


Drive Belts

4 There are a number of drive belts that move the carousel and the vertical shaft that puts the filter into place. If an encoder goes bad, and locks up a part, these belts can wear out quickly.

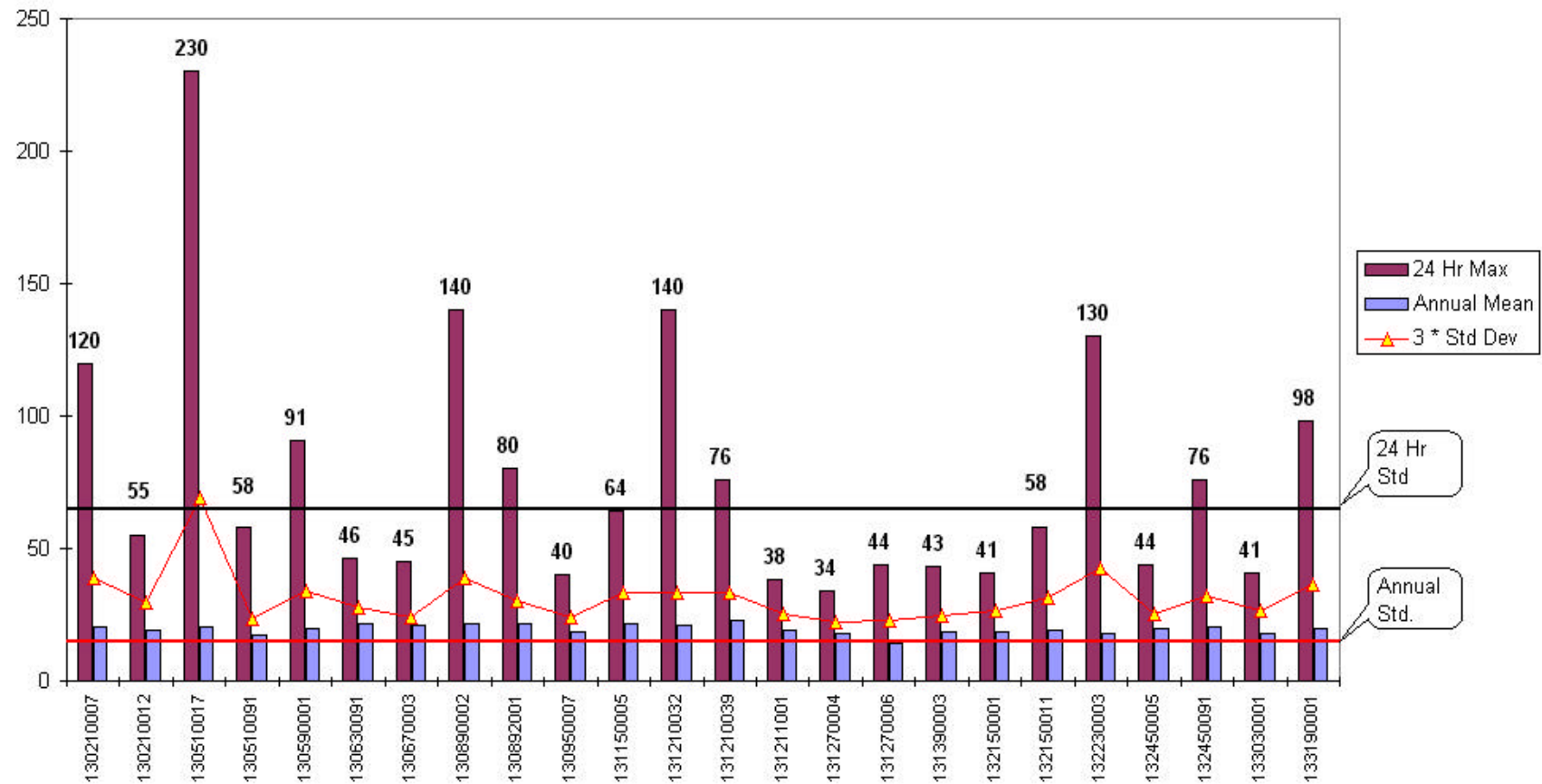


Inline fuses

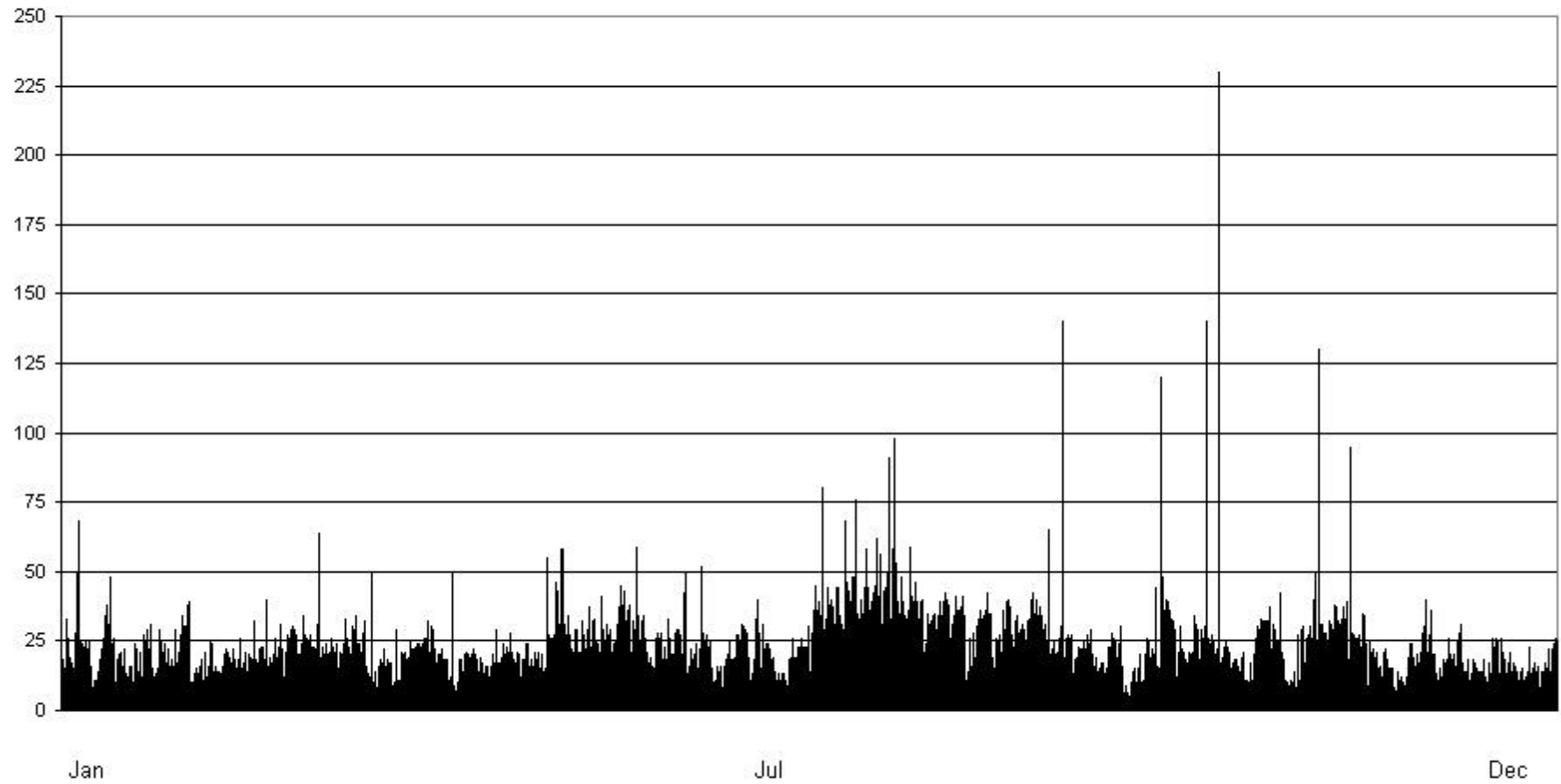


4 We had a problem with some of the pumps failing and burning out the power supply. Andersen suggested installing this inline fuse to safeguard the power supply.

1999 Georgia PM 2.5 Data



**GA PM 2.5 Data
All Sites Combined
(Chronologically)**



A graphic of a spiral-bound notebook with a brown cover and a cream-colored page. The spiral binding is on the left side. A horizontal line is drawn across the page, separating the header area from the main content area.

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